2. Arti

Program Name: Arti.java   **Input File: arti.dat**

Arti has discovered that he needs to find the square root of a long list of whole numbers. Rather than working through the list by hand and finding the square root of each number using a calculator Arti has decided to write a program to find the square root of each number for him.

Input: The first line of the input file will contain a single whole number N that is the number of integers in the file. There will be no more than 50 numbers in the file. N will be followed by N whole numbers X, where $0 < X < 5000$, and each is on a separate line.

Output: N lines where each line contains the number from the file, exactly one space and, that number's square root. The square root should be rounded to three decimal places.

Sample input:
```
5
7
8
9
51
17
```

Sample output:
```
7 2.646
8 2.828
9 3.000
51 7.141
17 4.123
```